

The logo for the Federation of American Scientists (FAS) is displayed in large, white, serif capital letters. The background of the slide features a blue banner at the top with a globe and a portion of a periodic table of elements, including Arsenic (As), Selenium (Se), and Bismuth (Bi).

**FAS**

Federation of American Scientists

[www.fas.org](http://www.fas.org)

# Politics and Energy Policy

Henry Kelly, President  
Federation of American Scientists

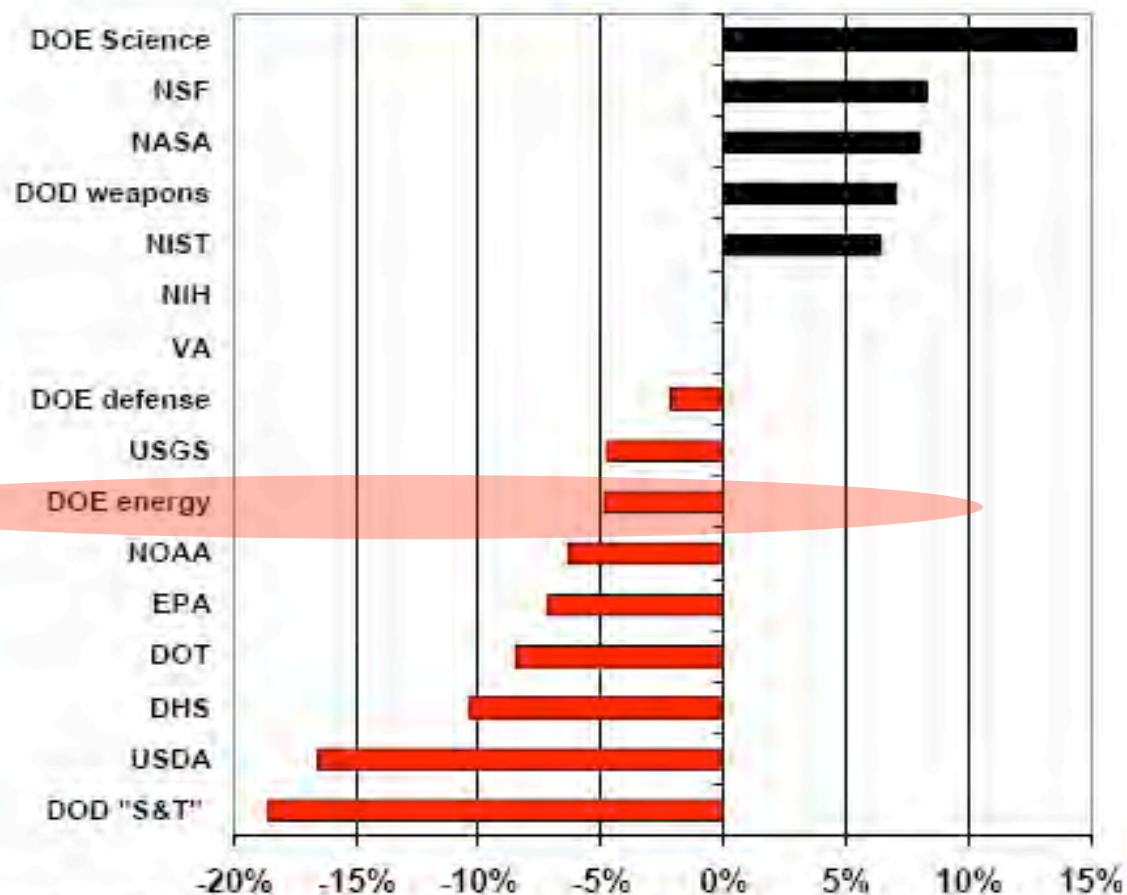
**Rosenfeld Symposium**  
**April, 2006**

## Themes

- US energy policy is in disrepair – underinvestment in efficiency is a key indicator
- This is both a technical and a political challenge
- The tradition of unbiased policy advice must be rebuilt
- Public concern about energy prices and the competitiveness of US products provide a unique opportunity

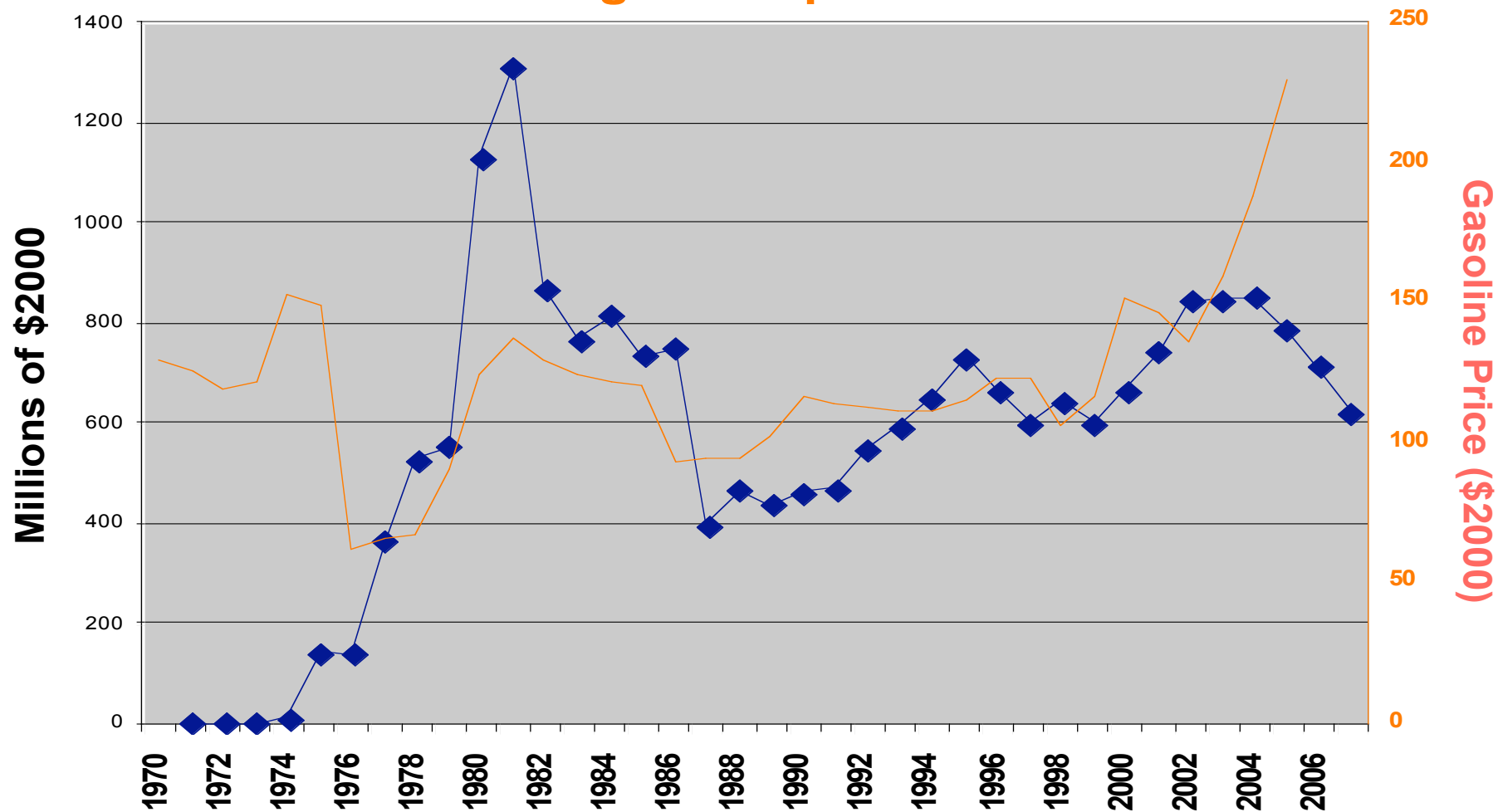
## FY 2007 R&D Request (revised)

Percent Change from FY 2006



Source: AAAS, based on OMB R&D data and agency estimates for FY 2007.  
 DOD "S&T" = DOD R&D in "6.1" through "6.3" categories plus medical research.  
 DOD development = DOD R&D in "6.4" and higher categories.  
 MARCH '06 REVISED © 2006 AAAS

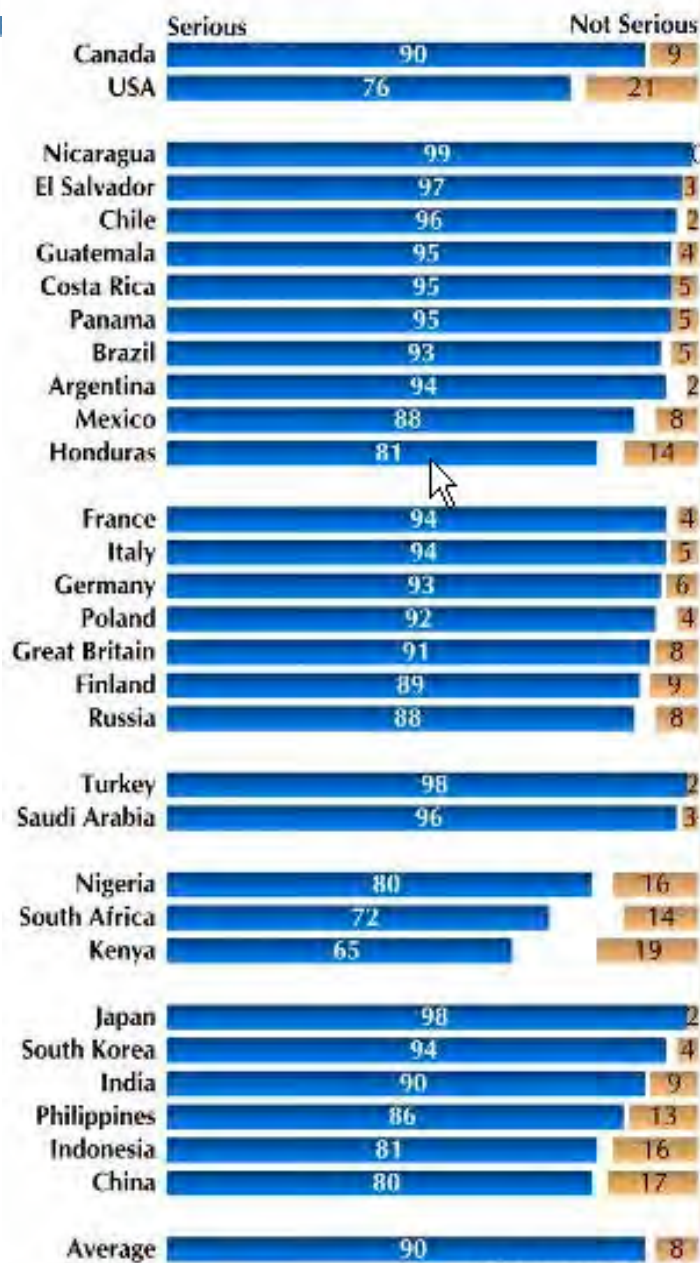
## Outlays for Energy Conservation and gasoline prices



## Concerns

- **Suppression of analysis and data collection (no information, no problems, no regulation)**
- **Secret proceedings**
- **Packing advisory committees**
- **Magnifying (or manufacturing) uncertainty**
- **Punishing Whistle Blowers**
- **Equating fringe science with mainstream science**

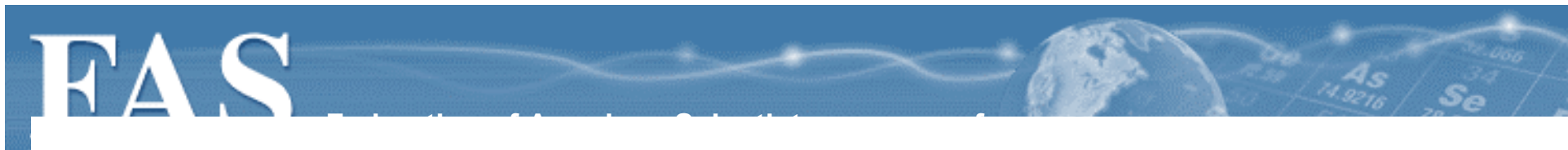
## Climate Change: A Serious Problem or Not?



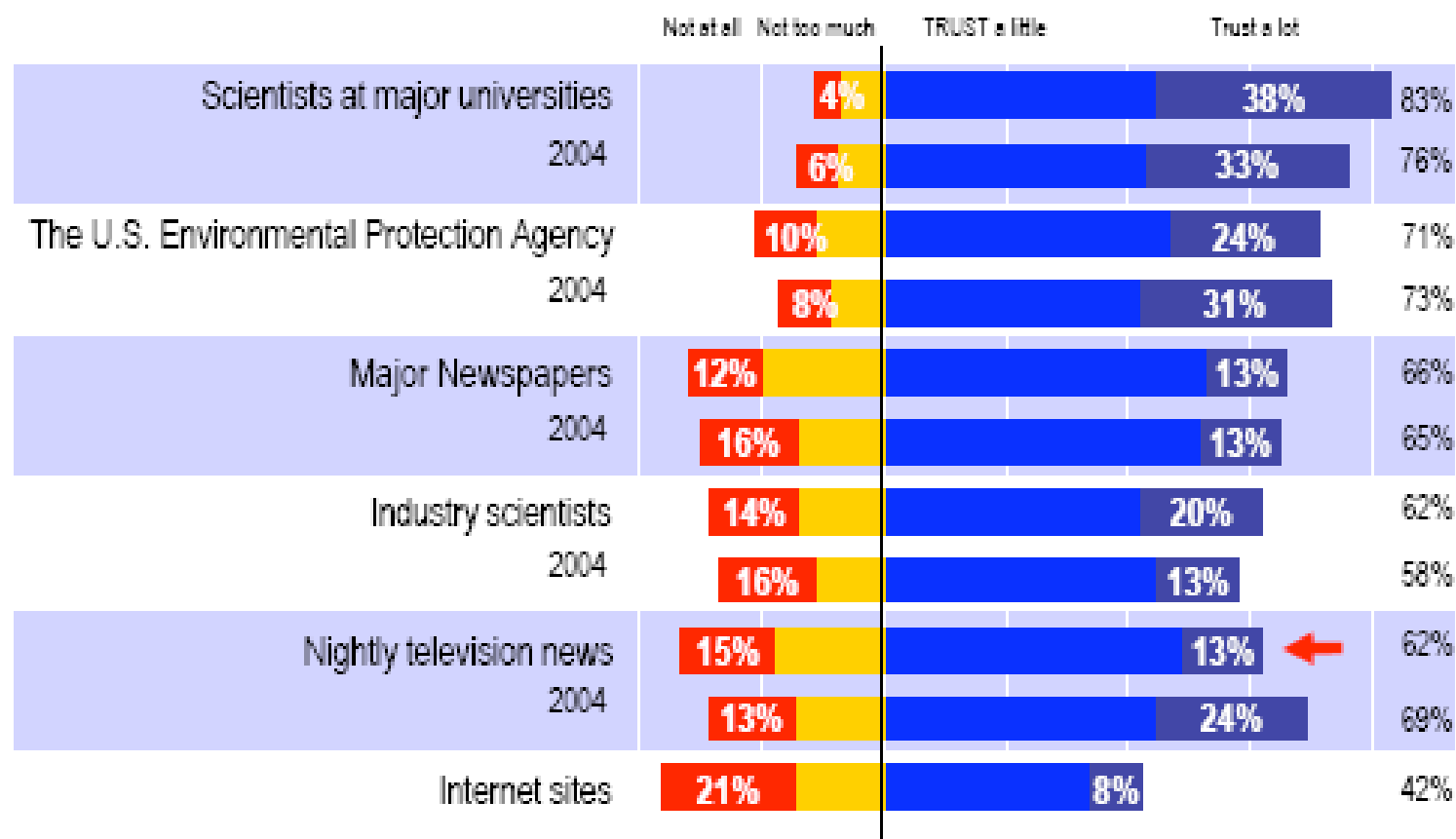
Globescan, 12/2005



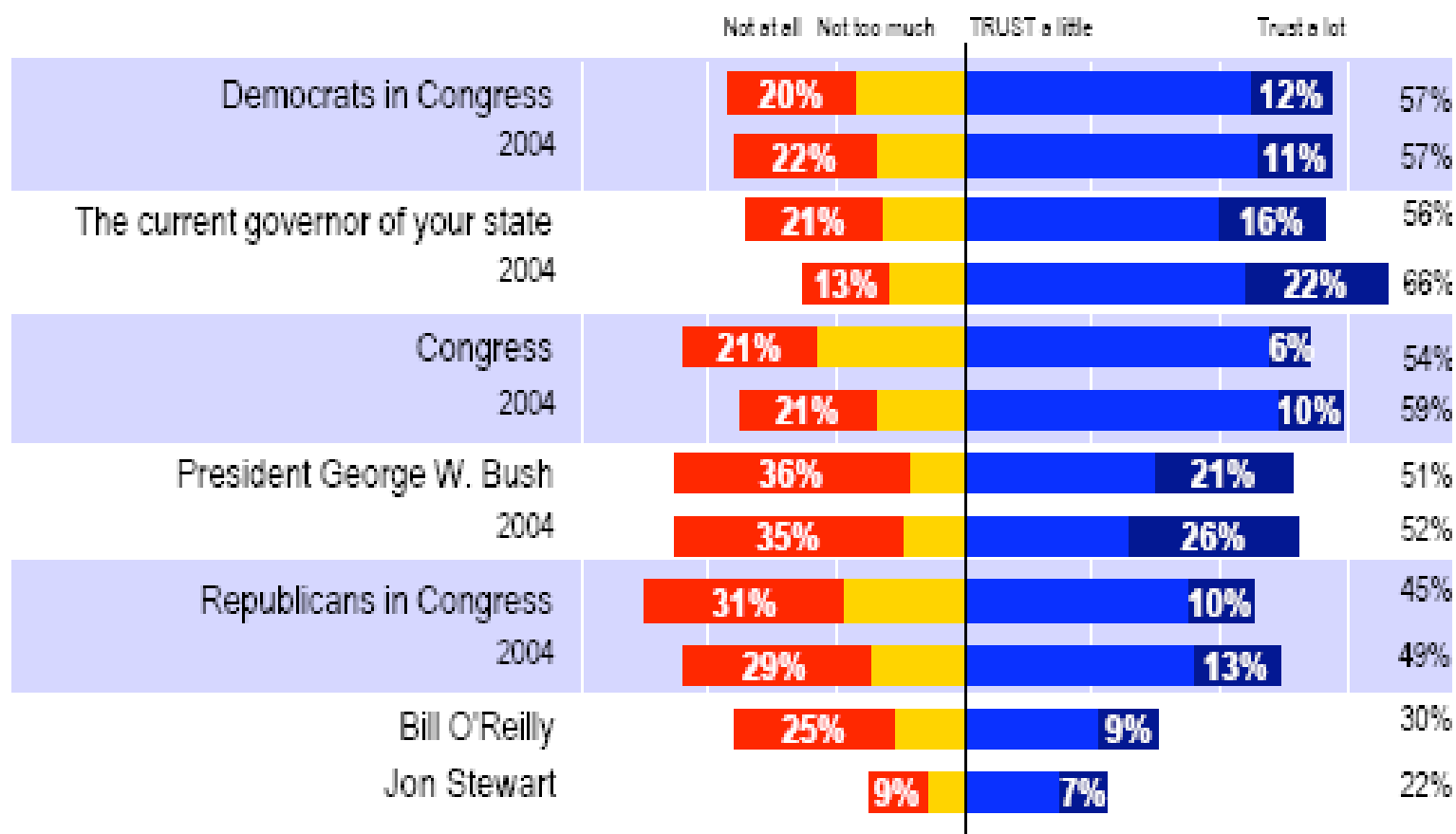




Q: I am going to read you the names of some public figures and organizations who may be sources of information about environmental issues...



Source: Yale Environment Survey



Source: Yale Environment Survey



# Is Science Just Another Interest Group?

Disagreeing about values is one thing, attempts to create scientific validity for political beliefs (“sound science”) threatens the credibility of the scientific process itself

## A Path Forward

- Build a solid infrastructure of unbiased science and technology advice for the administration and the Congress
- Build on successful state programs (local Rosenfeld effect)
- Align effective policies to issues that will have traction in elections:
  - Energy prices (should be cost of service)
  - Competitiveness and US technology leadership
- Make intergenerational values a political issue (a heavy lift?)

# The Baseline: Federal S&T Advice

- Congress:
  - GAO, CBO, CRS (OTA the late lamented)
  - Hearings
  - Staff rolodex
  - Google, Wikipedia
- Administration
  - OSTP (PCAST)
  - Recently abolished Secretary of Energy's Advisory Board
- The National Academies
- The press, NGOs, interest groups

## Advice for the Administration: Public and Private

- Integrate technical advice into practical decisions (private advice)
- Raise the threshold of pain for anyone deciding to make decisions ignoring technical advice (public advice)

FEDERATION of AMERICAN SCIENTISTS

Flying Blind:  
The Rise, Fall, and Possible  
Resurrection of Science Policy Advice  
in the United States

Henry Kelly, Ivan Oelrich,  
Steven Aftergood,  
Benn H. Tannenbaum

# Advice for the President

- Legislation strengthening the National Science and Technology Council (NSTC)
  - formalize the role of a Presidential Science and Technology advisor (as NSC) supported by strong, professional OSTP staff
  - independent advisory boards, one advisory board should have terms of six years
  - timely assessments using both internal staff and sponsoring studies in the National Academies and possibly other organizations.
- The NSTC & OMB undertake annual, coherent review of the national science and technology budget.

# Federal Advisory Committees:

## Criticism:

*“There is strong documentation of a wide-ranging effort to manipulate the government’s scientific advisory system”*

Donald Kennedy, editor of Science

- Bias in selection of members
- Closed meetings
- Incomplete publication of results

## Solutions:

- Explicit break between political advisors and external reviewers
- Selection and review by external groups
- Publish and public review of prospective members
- Increased reliance on private foundations (Fellows)?

## Congressional Advice: The Criticism

- Can Congress operate effectively as an independent branch of government without an ability to undertake independent S&T analysis?
- Special interest influence grows if independent analytical capabilities wither
- Many Committee Hearings have become little more than PR events



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## Congressional Advice:

- >\$20 million/year new program in GAO with bipartisan backing. At least 25% of topics should be selected by Director
- Encourage privately funded organizations such as the MacArthur Foundation's program for national security policy in AAAS.
- The Appropriation Committees of the House and Senate should conduct a regular, government-wide review of federal research and development expenditures inviting administration and public witnesses to comment.

# Secrecy Policy: The Criticism

***“ The possibility of excessive restrictions on scientific publication, motivated by security concerns, [poses ] clear threats to science today.... Some of the plans being proposed could severely hamper the U.S. research enterprise and decrease national security”***

Bruce Alberts, NRC

*.. in recent decades, many of our best minds were not attracted into the science and technology of energy. We in universities allowed energy to slip into academic backwaters, and neither our energy companies, nor our national laboratories, nor the entrepreneurial community have applied enough intellectual and financial muscle to it. We have grown complacent in the face of a monumental challenge.*

**Charles Vest 2006 (former President of MIT)**

- Lack of a clear career path for people interested in energy policy

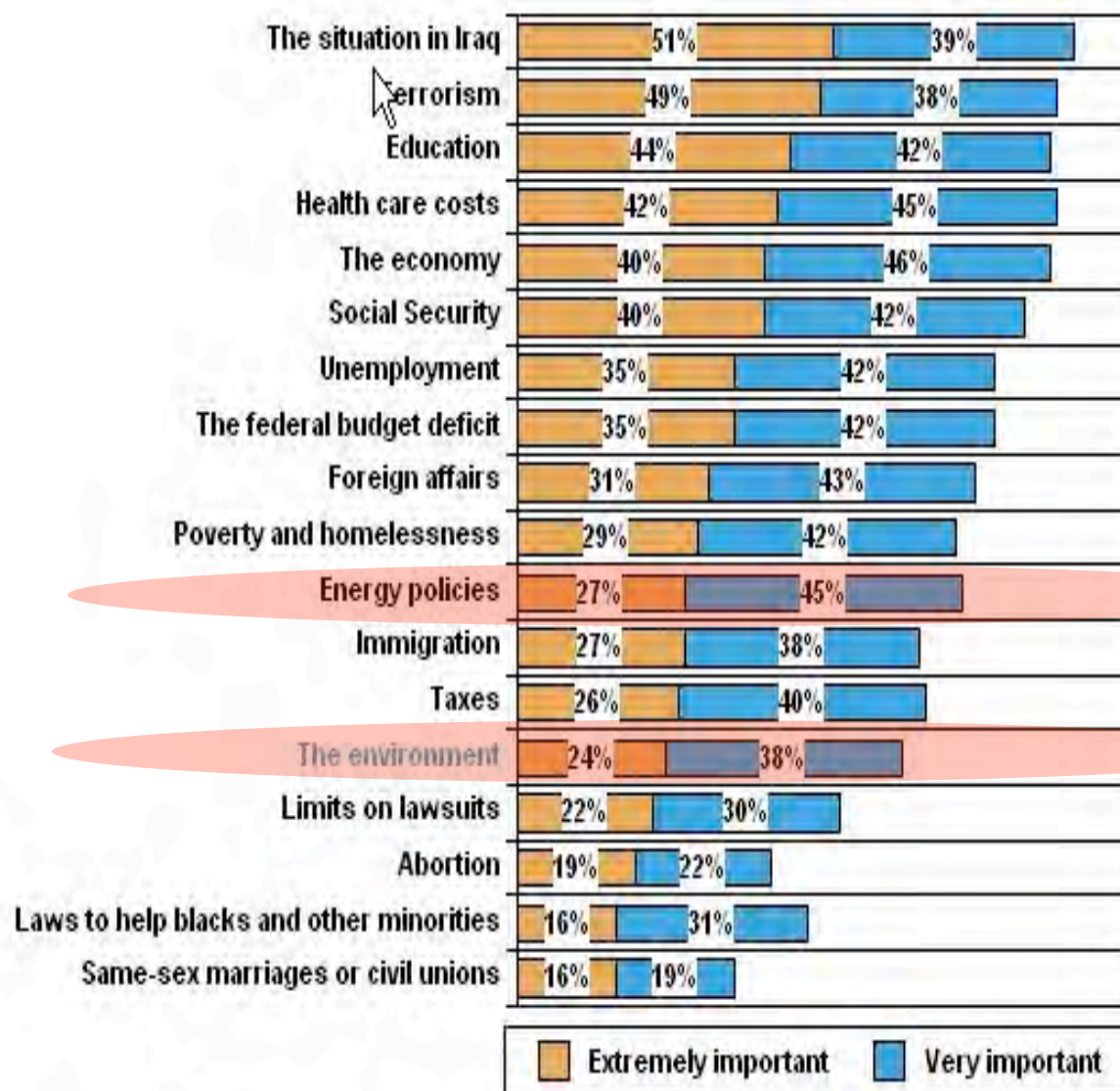


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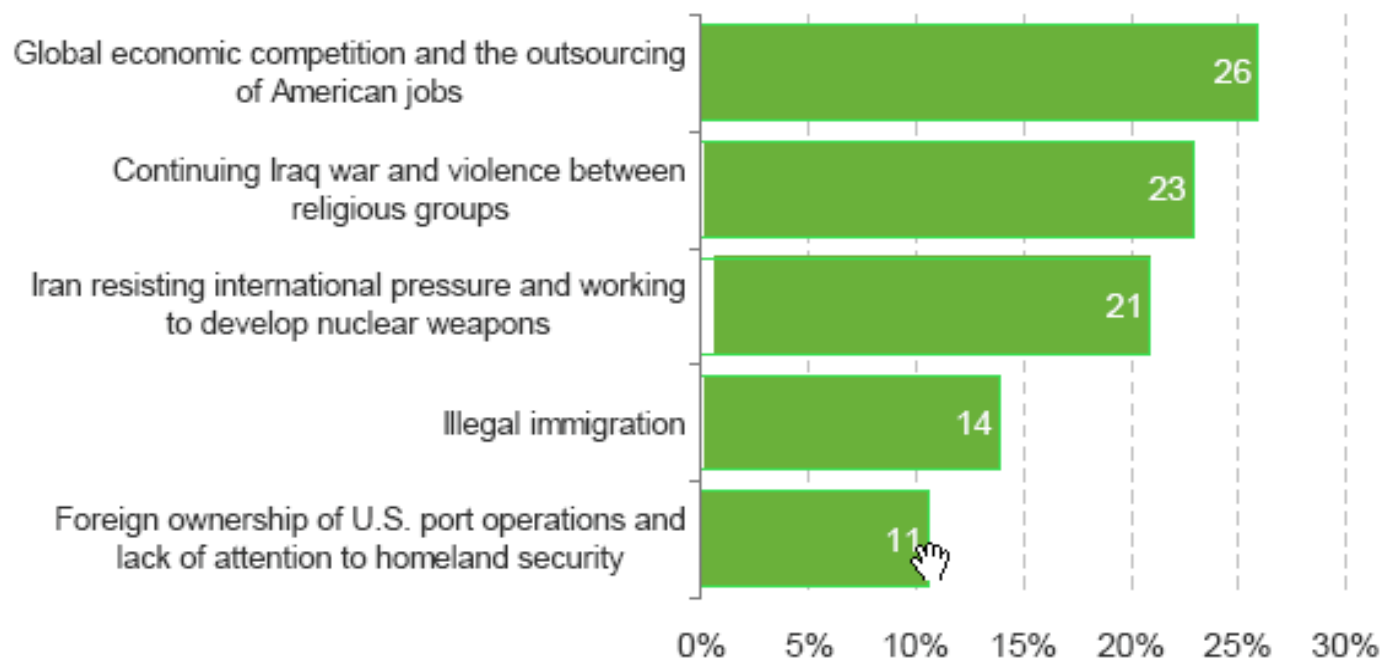
Is the support there?





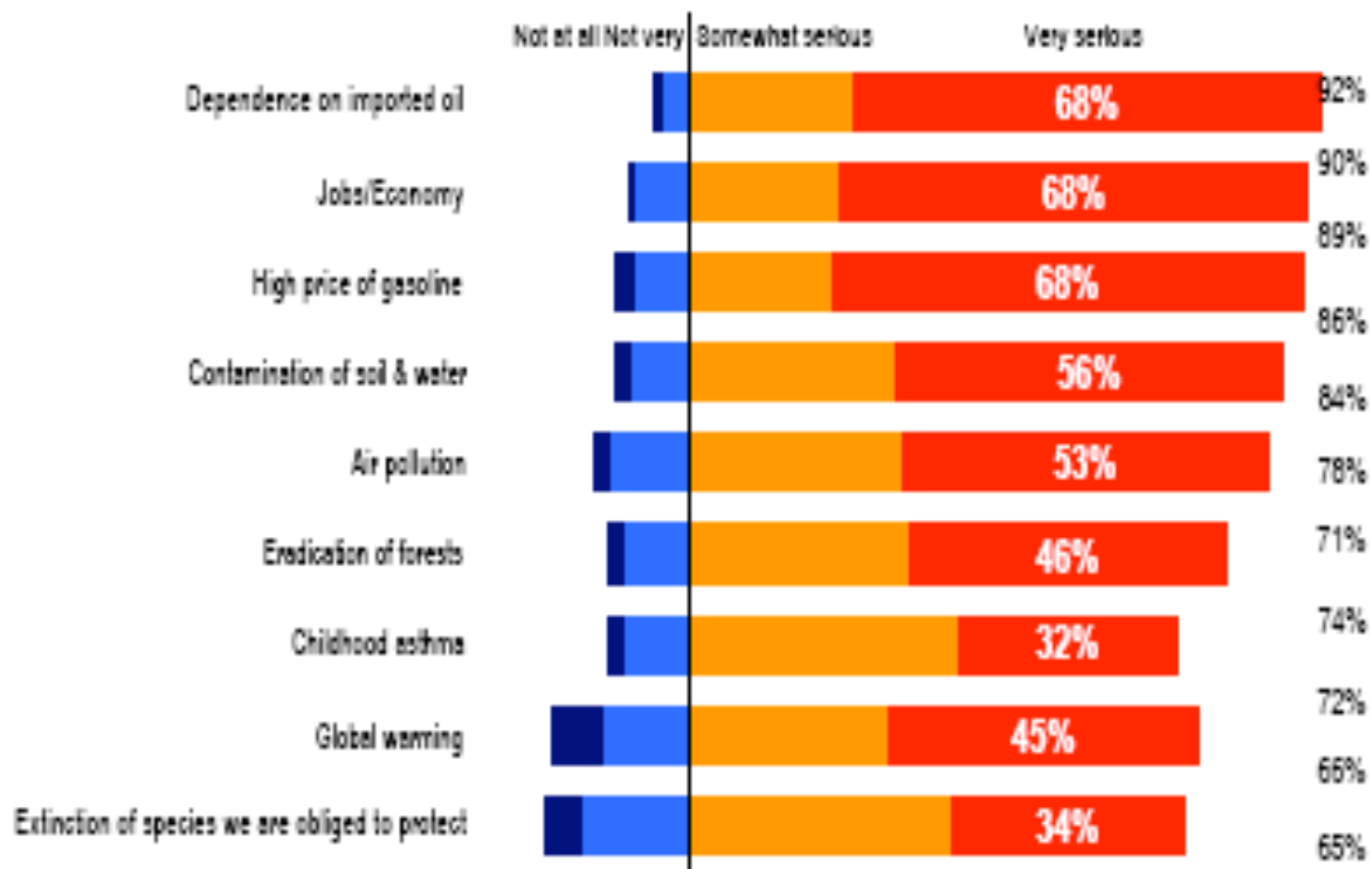
## Global issues impacting America – Top concern\*

*I want you to think about some things that happening in the world that could impact things here in America. Please tell me which concerns you the most.*



*\*From National Public Radio survey of 800 likely voters, conducted 3/12/06 - 3/14/06.*

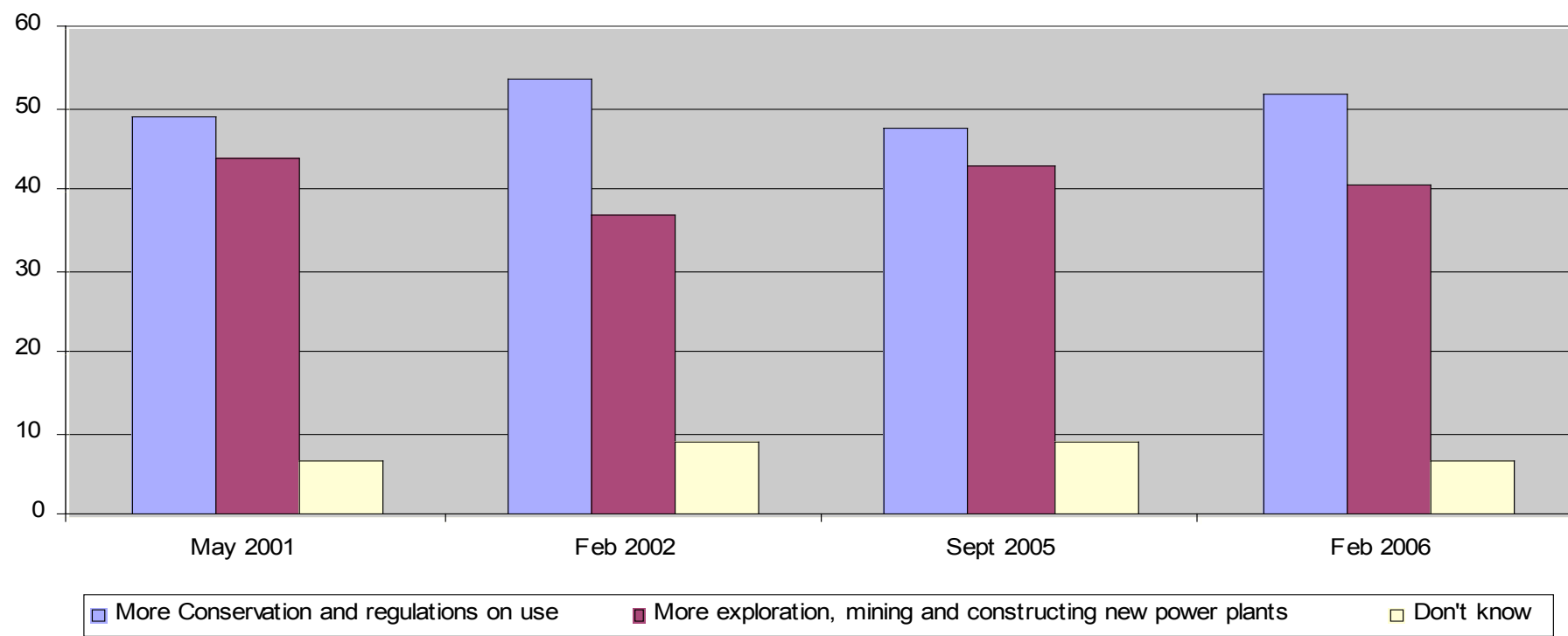
Now I am going to read you a few issues, and I would like you to tell me how serious a problem you think it is.





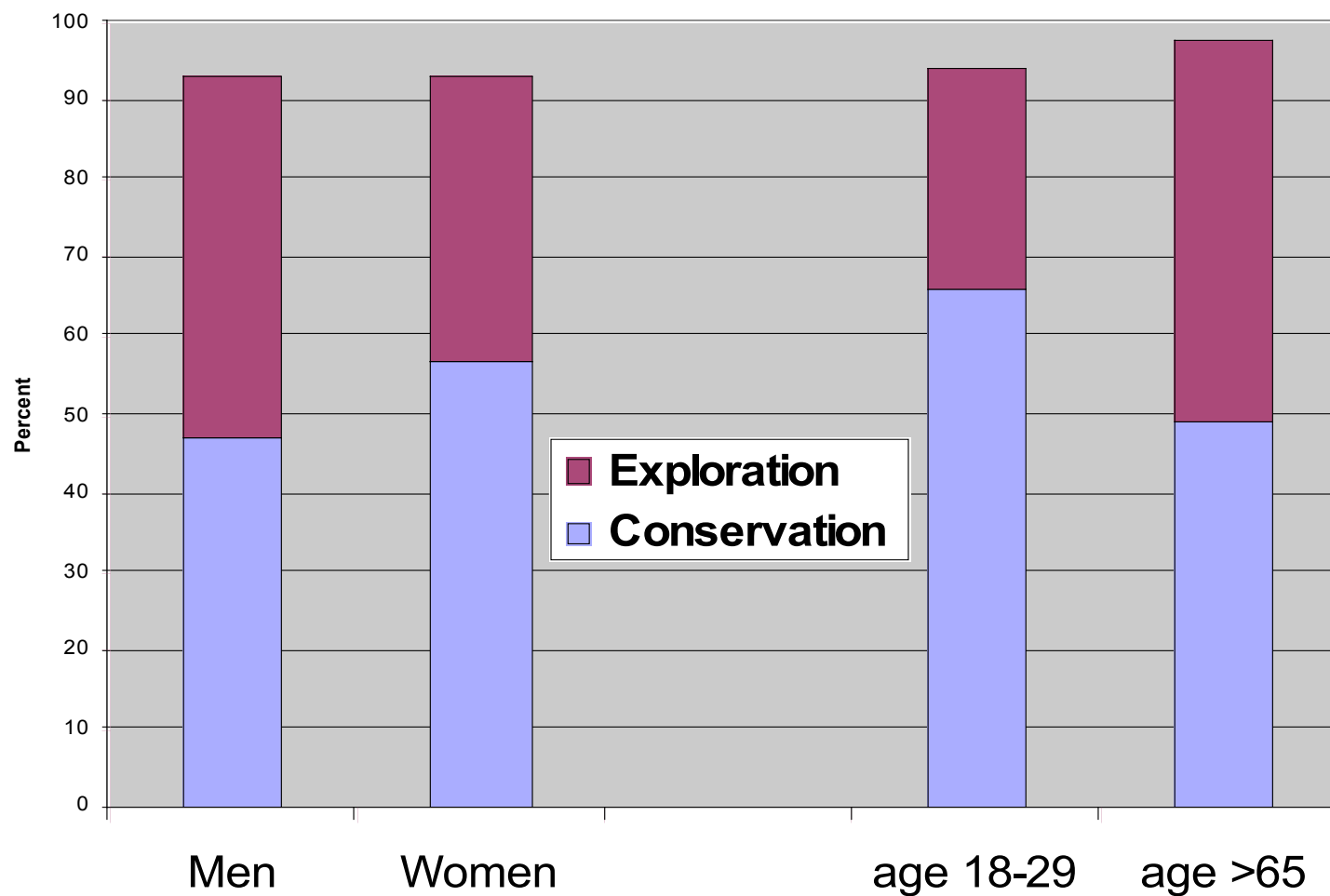
## Strong Interest in Conservation

*"More important priority for US energy policy"*



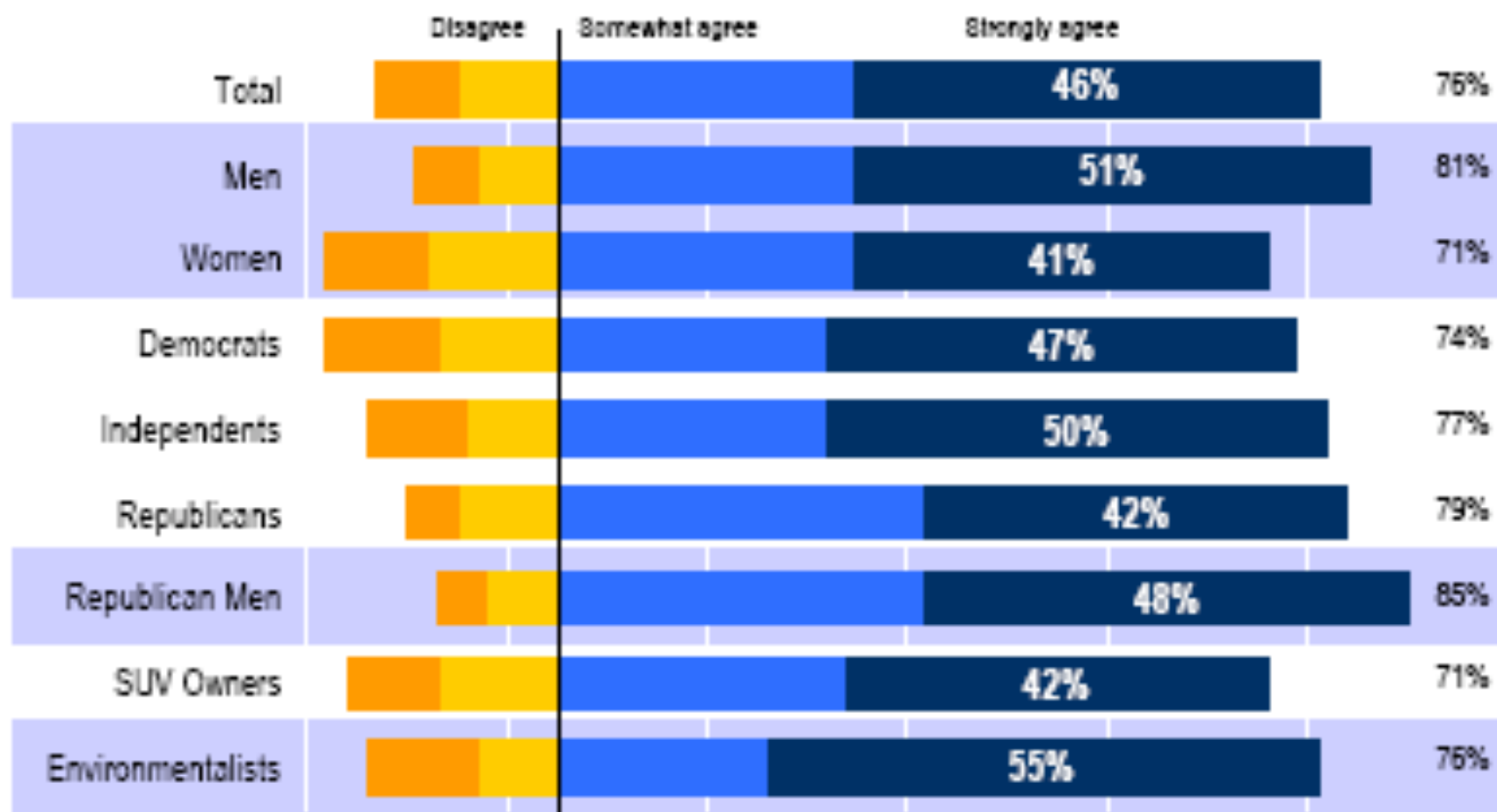
Source: Pew Research Center, February 2006

## Preferences for Conservation



Source: Pew Research Center, February 2006

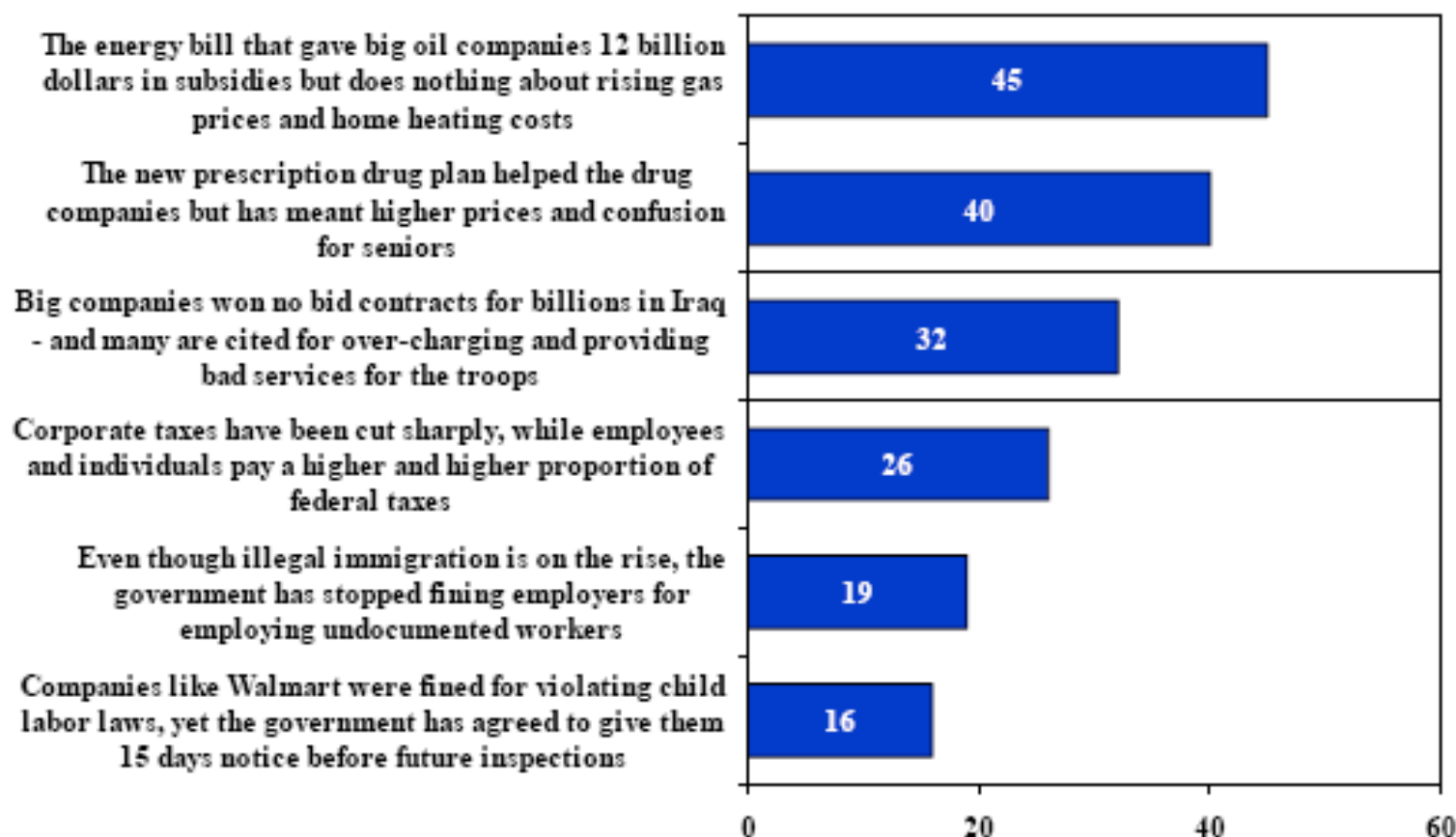
Q: Do you agree or disagree: "You don't have to sacrifice environmental protection to get economic growth. The choice between jobs and environment is a false one: we can have both." (Bill Clinton, 1992)



## Strong Support for Raising Fuel Efficiency

<i>Government policies</i>	<u>Favor</u>	<u>Oppose</u>	<u>DK</u>
<i>to address U.S. energy supply...</i>	%	%	%
Require better auto fuel efficiency	86	12	2=100
Give tax cuts for alternative energy	73	22	5=100
Set price controls on energy	69	26	5=100
Increase funding for mass transit	68	27	5=100
Give tax cuts for oil exploration	52	44	4=100
Promote more nuclear power	39	53	8=100

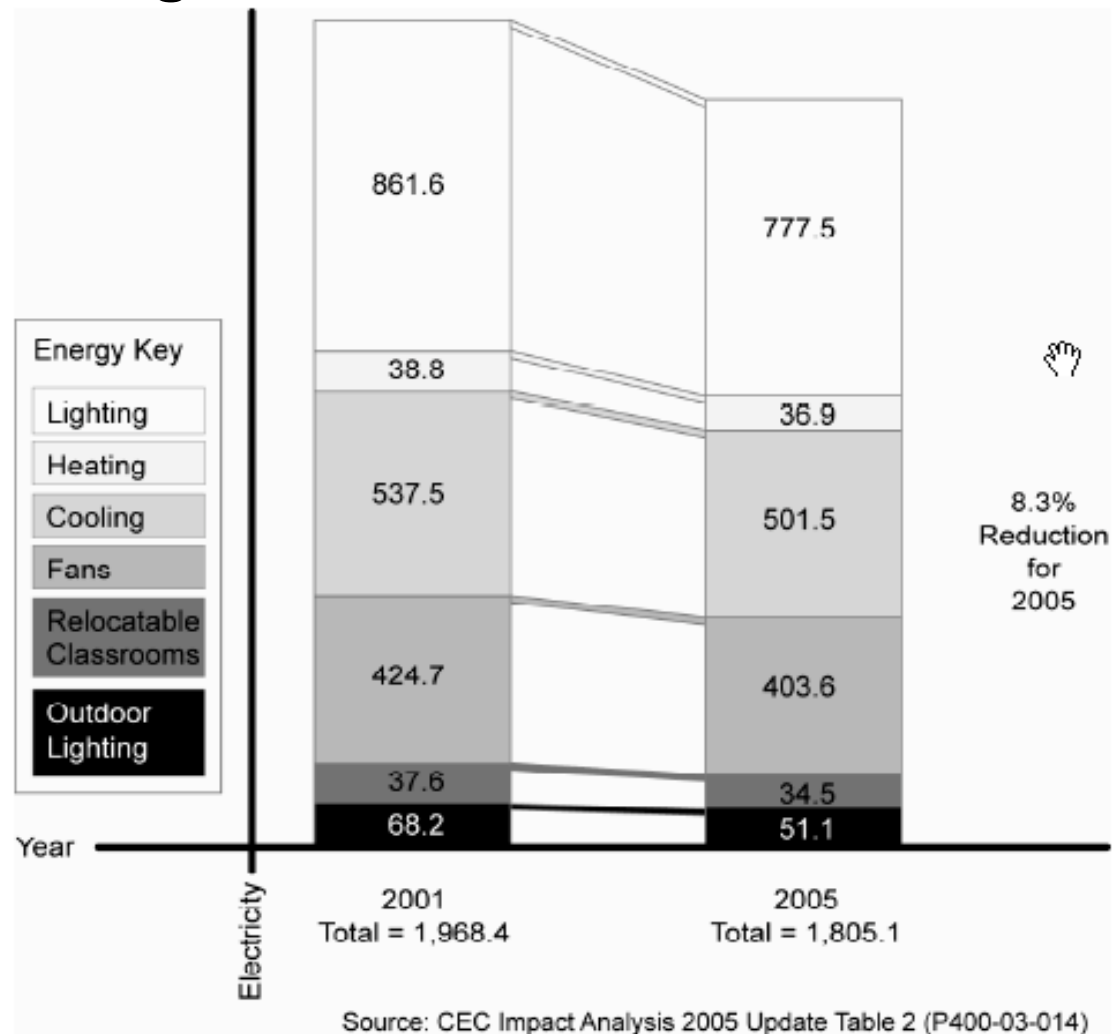
## Issue impact of corruption and lobbyist influence



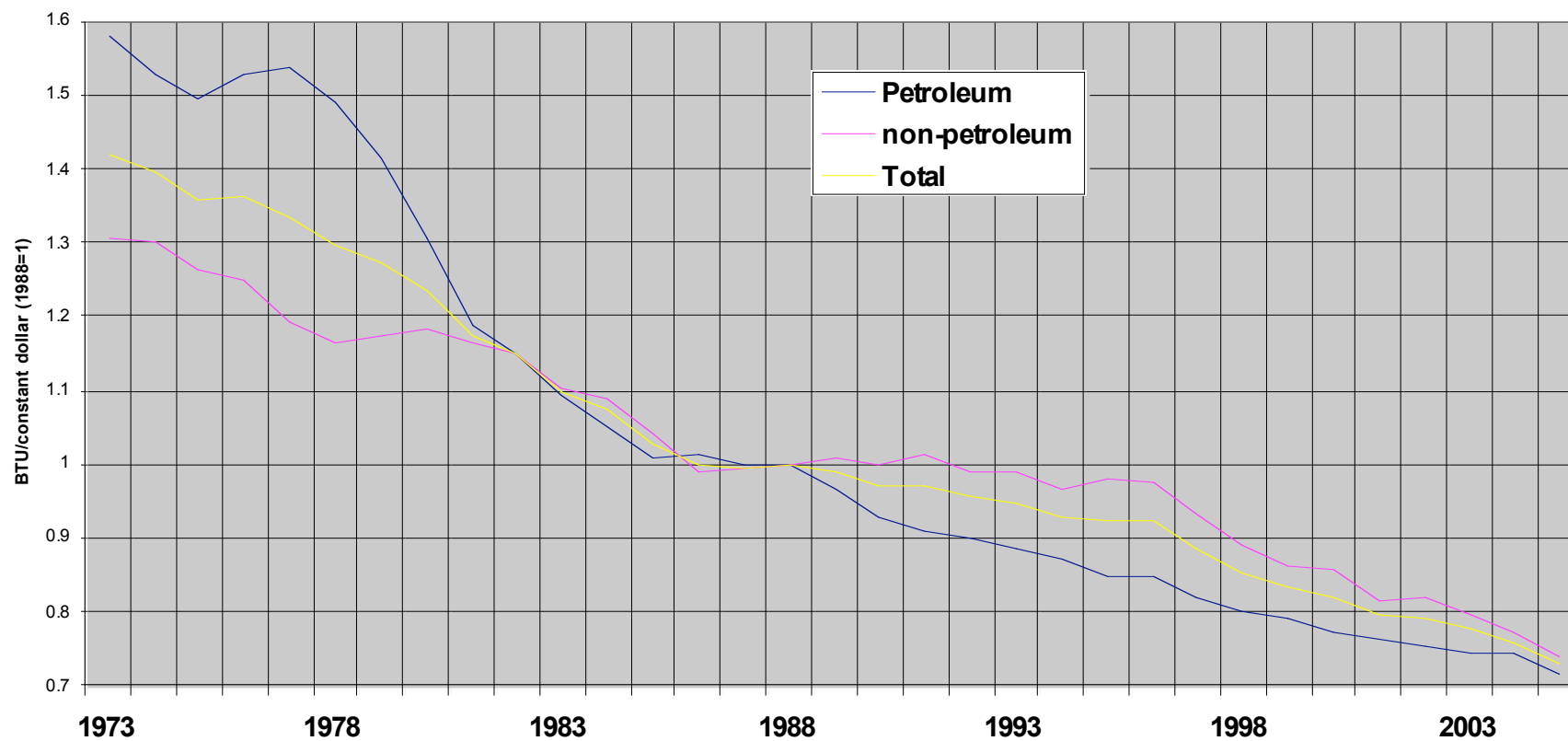
*"In the last year, there have been many stories about corruption and lobbyists in Washington. I'm going to read you a list of things that may have happened because of lobbyist influence. Please tell me which TWO bother you the most."*

## Build on State Success (California a leader)

### Electricity Savings from the 2005 California Standards



## Energy Intensity





# Elements of a Solution

- Link to innovation and competitiveness
  - Efficiency inherent in new products and production (info, nano, bio, materials)
  - World demand for efficiency (Has GM gotten the point?)
  - New construction materials
- Price shocks can lead to:
  - Short sighted nonsense (suspend gasoline tax, etc)
  - Or, create an opening for an aggressive new approach that could actually attack the long term problem
- Aggressive communications campaign on intergenerational values

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# Some Vexed Decisions

(a partial list)

- Light Water Reactor Safety, Waste, Proliferation
- Synfuels
- Climate policy
- Hydrogen
- Global Nuclear Energy Partnership
- Environmental Regulation (fuel additives, species protection)

## **Of course energy is not alone:**

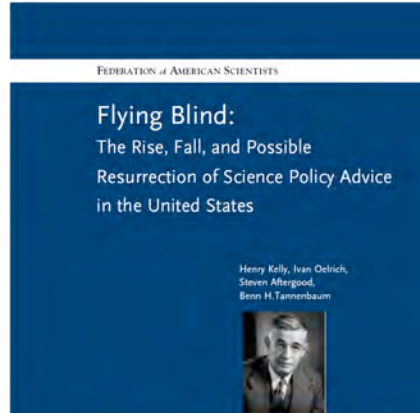
- SST, MagLev
- Genetically Modified Organisms
- Stem cells
- Missile Defense
- New nuclear weapons

## This works pretty well:

- **AEC act, Espionage Act, Intelligence Identities Protection Act, others** provide statutory authority
- **The Freedom of Information Act (FOIA)** public right to access agency records, subject to applicable exemptions.
- **Executive Order 12958 Classified National Security Information** 1995 amended by Executive Order 13142, 1999
- **Electronic Freedom of Information Act** 1996 (E-FOIA) frequently requested records made available on the Internet.
- **Interagency Security Classification Appeals Panel (ISCAP).**
- **NSDD 189:** Basic Research unrestricted unless specifically classified

# Uncharted Territory

- In 3 years growth from 11 to 16 million classification actions; costs reached \$7.5B (up \$1B in one year)
- Vaguely defined new forms of secrecy:
  - Sensitive but not classified
  - Homeland Security “For Official Use Only” and other designations
- Liberal interpretation of FOIA exemptions and huge delays in compliance demand (> 3 million) huge backlogs
- Relations with foreign scientists (e.g. Deemed exports )
- Extension of classification authority to Agriculture, EPA, HHS
- 2002 Draft DoD regulation would require DoD approval to “discuss or publish findings of all military-sponsored unclassified research”



## Public Information

- Fundamental Classification Policy Review
- High barriers to any limits on unclassified scientific information,
- Create new internal checks on secrecy (strict oversight)
- Adopt an affirmative disclosure policy,
- Mandate routine publication of advisory committee reports,
- Direct agencies to proactively disclose deliberative records when possible.

# What Was Lost When OTA Was Abolished?

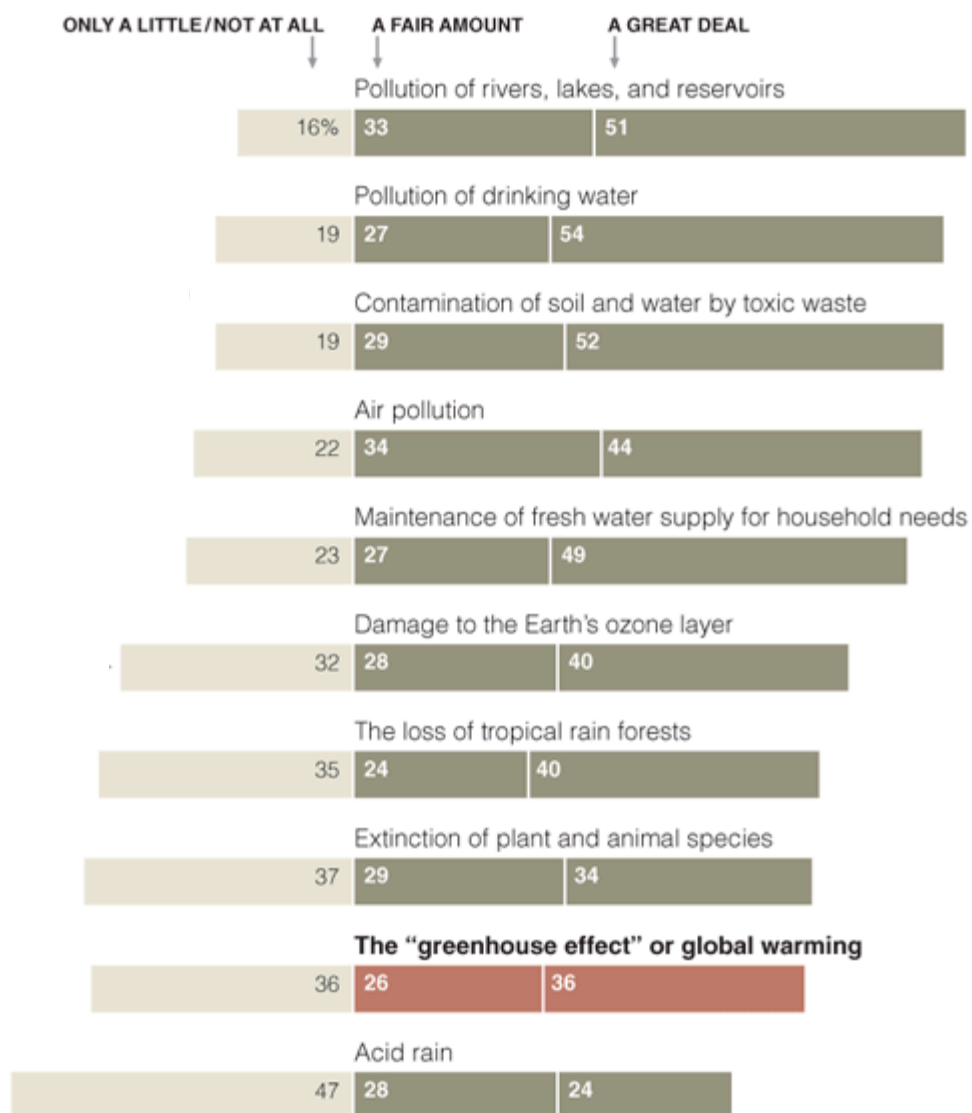
- Technical analysts able to understand the Congressional process & communicate effectively
- Members and staff know how to ask questions a technical group can answer
- Ability to anticipate
- Career path for science policy & strong university/government links



### Evidence of Corruption How upset does that make you?

	Extremely Upset	Extremely/Very Upset
Even after they earned record profits last year, the oil industry used their influence in Washington to get an energy bill that gives them 12 billion dollars in subsidies but does nothing to lower gas prices or home heating costs	50	76
Halliburton, the former company of Vice President Cheney got billions of dollars worth of no-bid contracts, and they have since been fined 2 million for overcharging the government and are suspected of costing the government an additional 1.4 billion in wasteful spending.	39	67
The top Medicare Administrator Tom Scully negotiated to get a lobbying job with the drug companies, even as he helped draft the new prescription drug bill, which helped the companies more than seniors.	37	66

## Are you worried about:



## Ground Rules for Repairs:

- Clearly distinguish analysis from values
- Uncertainty is inevitable & not an excuse for inaction
- Sound policy depends on a rough marketplace for ideas, with multiple entry points.
- While imperfect, science has developed reasonable ground rules for debate

## Breaking the Addiction

<i>Is America</i>	<u>Total</u>	<u>Rep</u>	<u>Dem</u>	<u>Ind</u>
<i>addicted to oil?</i>	%	%	%	%
Yes	85	82	82	90
No	11	14	13	7
Don't know	<u>4</u>	<u>4</u>	<u>5</u>	<u>3</u>
	100	100	100	100
 <i>Can we end reliance</i>				
<i>on foreign oil in</i>				
<i>next 20 years?</i>				
Yes	50	58	43	52
No	42	37	46	43
Don't know	<u>8</u>	<u>5</u>	<u>11</u>	<u>5</u>
	100	100	100	100

Source: Pew Research Center, February 2006

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